

# PATENT COOPERATION TREATY

# PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>N.77933A JCI</b>	<b>FOR FURTHER ACTION</b> <small>see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.</small>	
International application No. <b>PCT/GB 00/ 03760</b>	International filing date (day/month/year) <b>02/10/2000</b>	(Earliest) Priority Date (day/month/year) <b>01/10/1999</b>
Applicant  <b>ISIS INNOVATION LIMITED</b>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 6 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

**1. Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☒ furnished subsequently to this Authority in written form.

☒ furnished subsequently to this Authority in computer readable form.

☒ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☒ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☒ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of invention is lacking** (see Box II).

4. With regard to the **title**,

☐ the text is approved as submitted by the applicant.

☒ the text has been established by this Authority to read as follows:

**DIAGNOSIS OF COELIAC DISEASE USING A GLIADIN EPITOPE**

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.

☐ as suggested by the applicant.

☒ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

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☐ None of the figures.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.1

Although claim(s) 5 and 40 are directed to a diagnostic method practised on the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.  
And although claims 41 and 42 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.

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Continuation of Box I.1

Rule 39.1(iv) PCT - Method for treatment of the human or animal body by therapy

Rule 39.1(iv) PCT - Diagnostic method practised on the human or animal body

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/GB 00/03760

**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 G01N33/68 C07K14/415 A61P37/08

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 G01N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)  
MEDLINE, CHEM ABS Data, BIOSIS, EMBASE, EPO-Internal, WPI Data, PAJ

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	O'KEEFFE J ET AL: "T cell proliferation, MHC class II restriction and cytokine products of gliadin-stimulated peripheral blood mononuclear cells (PBMC)." CLINICAL AND EXPERIMENTAL IMMUNOLOGY, vol. 117, no. 2, August 1999 (1999-08), pages 269-276, XP000989621 ISSN: 0009-9104 the whole document	1-3, 6-12, 22-26,37
X	EP 0 905 518 A (UNIV LEIDEN ; ACADEMISCH ZIEKENHUIS LEIDEN (NL)) 31 March 1999 (1999-03-31) the whole document	12, 14-22, 25-59
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

\* Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \* & \* document member of the same patent family

Date of the actual completion of the international search

2 March 2001

Date of mailing of the international search report

28/03/2001

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Authorized officer

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# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/GB 00/03760

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>VAN DE WAL YVONNE ET AL: "Small intestinal T cells of celiac disease patients recognize a natural pepsin fragment of gliadin." PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES, vol. 95, no. 17, 18 August 1998 (1998-08-18), pages 10050-10054, XP000982626 Aug. 18, 1998 ISSN: 0027-8424 the whole document</p>	<p>1-3, 6-12, 22-26,37</p>
X	<p>TRONCONE R ET AL: "Cytokines produced by gliadin-specific T cell clones from the coeliac mucosa." GASTROENTEROLOGY, vol. 110, no. 4 SUPPL., April 1996 (1996-04), page A1031 XP000989625 96th Annual Meeting of the American Gastroenterological Association and the Digestive Disease Week; San Francisco, California, USA; May 19-22, 1996 ISSN: 0016-5085 abstract</p>	<p>1-3, 6-12, 22-26,37</p>
X	<p>GODKIN A J ET AL: "Identification of a coeliac disease-specific T cell epitope from A-gliadin." GUT, vol. 44, no. SUPPL. 1, April 1999 (1999-04), page A72 XP000989626 British Society of Gastroenterology Annual Meeting; Glasgow, Scotland, UK; March 23-25, 1999 ISSN: 0017-5749 abstract</p>	<p>1-3, 6-12, 22-26,37</p>
A	<p>OKITA T W ET AL: "EVOLUTION AND HETEROGENEITY OF THE ALPHA-BETA-TYPE AND GAMMA-TYPE GLIADIN DNA SEQUENCES" JOURNAL OF BIOLOGICAL CHEMISTRY, vol. 260, no. 13, 1985, pages 8203-8213, XP000982597 ISSN: 0021-9258 the whole document -&amp; DATABASE SWISSPROT 'Online! ID: GDA4_Wheat ACC: P04724, 13 August 1987 (1987-08-13) XP002161985 abstract</p>	<p>38-59</p>

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International Application No  
PCT/GB 00/03760

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	UHLIG H ET AL: "Role of tissue transglutaminase in gliadin binding to reticular extracellular matrix and relation to coeliac disease autoantibodies." AUTOIMMUNITY, (1998) 28 (4) 185-95. , XP002118954 page 186, left-hand column, paragraph 2 ---	13
P, X	ANDERSON ROBERT P ET AL: "In vivo antigen challenge in celiac disease identifies a single transglutaminase-modified peptide as the dominant A-gliadin T-cell epitope." NATURE MEDICINE, vol. 6, no. 3, March 2000 (2000-03), pages 337-342, XP000982628 ISSN: 1078-8956 the whole document ---	1-34,37
P, X	ARENTZ-HANSEN, HELENE ET AL: "The intestinal T cell response to alpha-gliadin in adult celiac disease is focused on a single deamidated glutamine targeted by tissue transglutaminase" J. EXP. MED., vol. 191, no. 4, 21 February 2000 (2000-02-21), pages 603-612, XP000986723 the whole document -----	1-34,37

# INTERNATIONAL SEARCH REPORT

### Information on patent family members

**Patent Application No**

PCT/GB 00/03760

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 0905518	A	31-03-1999	NONE
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